

COASTAL CONSERVANCY

Staff Recommendation
June 5, 2008

SUISUN CREEK STREAM AND RIPARIAN HABITAT RESTORATION

File No. 01-013-02
Project Manager: Melanie Denninger

RECOMMENDED ACTION: Authorization to disburse an amount not to exceed \$350,000 to the California Land Stewardship Institute to carry out stream and riparian habitat restoration projects on Suisun Creek and two of its tributaries, White and Wooden Valley Creeks in Napa and Solano Counties.

LOCATION: Unincorporated Napa and Solano Counties

PROGRAM CATEGORY: San Francisco Bay Area Conservancy

EXHIBITS

Exhibit 1: [Project Location](#)

Exhibit 2: [Project Sites](#)

Exhibit 3: [Project Photographs](#)

Exhibit 4: [Letters from Project Area Landowners](#)

Exhibit 5: [Letters of Support](#)

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31160-31165 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed \$350,000 (three hundred fifty thousand dollars) to the California Land Stewardship Institute (CLSI) to carry out stream and riparian habitat restoration projects on Suisun Creek and two of its tributaries, White and Wooden Valley Creeks, subject to the condition that prior to the disbursement of any funds, CLSI shall submit for the review and written approval of the Executive Officer of the Conservancy:

1. A work program, budget and schedule.
2. The name and qualifications of any contractors that CLSI intends to retain to carry out the project.

3. A written agreement between CLSI and the owner of any property on which project restoration project work will occur, permitting the work to be undertaken and allowing for access to the property for the purposes of undertaking the work and for subsequent monitoring and maintenance.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with the Project Selection Criteria and Guidelines, last updated by the Conservancy on September 20, 2007.
2. The proposed authorization is consistent with the purposes and objectives of Chapter 4.5 of Division 21 of the Public Resources Code (Sections 31160-31165).
3. CLSI is a non-profit organization existing under Section 501(c)(3) of the U.S. Internal Revenue Code, and whose purposes are consistent with Division 21 of the Public Resources Code.”

PROJECT SUMMARY:

Staff is recommending that the Coastal Conservancy authorize the disbursement of up to \$350,000 to the California Land Stewardship Institute (CLSI) for restoration of stream and riparian habitat on Suisun Creek and two important tributaries, White and Wooden Valley Creeks (Exhibits 1 and 2).

The 53-square-mile Suisun Creek watershed drops down from southeastern Napa County into Solano County and drains into Suisun Marsh (Exhibit 2). Ninety-nine percent of the watershed is rural. A 2007 study identified this watershed as one of the eight most promising San Francisco Bay drainages for restoration of habitat for the threatened steelhead trout. It also has opportunities for extensive restoration of riparian habitat, so much of which has been lost in the Bay Area to agricultural and urban development and flood management infrastructure. A 2004 Suisun Creek Watershed Assessment and Enhancement Plan (Watershed Plan) and subsequent monitoring of stream conditions and communications with landowners have set the stage for implementing stream and riparian habitat restoration improvements. (For additional project context, see “Project History” below.)

The proposed project includes three elements (shown on maps and in photographs in Exhibits 2 and 3):

- *Fencing and riparian revegetation on a denuded 100-yard reach of White Creek, with pre- and post-installation monitoring:* Studies conducted for the California Sportfishing Protection Alliance (CSPA) under a 2005 CALFED grant have documented steelhead spawning in a middle reach of White Creek, as well as die-off of many smolts during hot summer weather. One clear factor in smolt mortality is elevated water temperature resulting from clearing of riparian vegetation by prior landowners. Revegetation will improve in-stream conditions on this reach and will also provide habitat for riparian animal species. Reduced evaporation may result in a longer season of surface flow connecting stream pools, with attendant improvements in oxygenation. Following planting and fencing, the project will include post-construction monitoring to check on

the fencing and establishment of plants. Monitoring of stream conditions will be coordinated with monitoring under the SWRCB/CALFED grant.

- *Removal of the invasive non-native Arundo donax (giant reed) and replacement with native riparian vegetation along approximately two to five miles of Suisun Creek, with pre- and post-installation monitoring:* *Arundo* is the invasive, non-native plant whose tall, dense stands crowd out riparian plant and animal communities, force stream channels to change shape and direction, and pose fire and flooding hazards. Up and down California, land managers are fighting *Arundo*, using methods that have been tested and improved. Under its CALFED grant, CSPA mapped *Arundo* stands on Suisun Creek and is completing eradication and revegetation on approximately 5 miles of channel where *Arundo* occurred farthest upstream. Under the proposed project, CLSI will undertake eradication and revegetation on approximately two to five miles of channel just downstream of the reach funded by CALFED. Following planting, the project will include post-construction monitoring to check on the establishment of plants.
- *Design, environmental review, and detailed cost estimates for removing a concrete barrier to fish passage on Wooden Valley Creek and for installing a small replacement bridge:* A background study for the Watershed Plan documented an obstruction to fish passage during low and moderate stream flows where a concrete stream crossing had collapsed. In order to prepare to remove the obstruction and replace it with a stable bridge, and to seek funding for removal and replacement, the demolition and construction process and bridge design need to be worked out in detail and evaluated for environmental impacts and possible mitigation measures. This project element will lay the groundwork for obtaining permits and approvals, and provide the information needed to assemble construction funding.

CLSI, the grantee for the proposed project, was created in the 1990s to pursue a Fish-Friendly Farming program in the North Bay and in Mendocino County. CLSI and its founder, Laurel Marcus, have a substantial history of working with owners of agricultural properties on farm plans and improvements to protect natural resources. Beginning in 2001, Ms. Marcus' consulting firm, Laurel Marcus & Associates (LMA) was the principal consultant engaged by the California Sportfishing Protection Alliance (CSPA) under a grant from the Conservancy to prepare the Watershed Plan. Since 2005, LMA has been engaged by CSPA to manage implementation of its \$580,000 CALFED grant for *Arundo* removal and riparian revegetation on the uppermost infested reach of Suisun Creek, evaluating the benefits and impacts to steelhead of water releases from a dam on the mainstem of Suisun Creek, monitoring of stream conditions in the system, conducting workshops about *Arundo* removal, seeking the involvement of farmers in the "Fish-Friendly Farming" program, and related tasks. While CSPA has been successful in managing the CALFED grant projects, both CSPA and CLSI have concluded that the latter is better equipped to directly manage the proposed Conservancy grant project. CLSI has also been awarded a \$15,000 watershed coordination grant for the Suisun Creek watershed by the Department of Conservation. The grant may assist indirectly with the proposed project.

Under the proposed project, the private owners of affected properties will all be required to enter into agreements protecting the Conservancy's investment of public funds and requiring

participation and maintenance reflecting the respective benefits to the owners. The farmers who own the sites of the proposed White Creek and Wooden Valley Creek project elements have previously allowed stream monitoring on their respective properties and the Wooden Valley Creek property owner has engaged CLSI to advise on improvements to farm roads to prevent erosion into the creek. Both owners have provided letters indicating their willingness to work with CLSI on the proposed project elements. Several of the landowners at the upstream end of the *Arundo* removal and revegetation area have agreed to work with CLSI on their properties, and the Suisun Valley Fruit Growers Association is assisting in communications with the remaining owners. Letters from landowners are attached as Exhibit 4.

Site Description: The 53-square-mile Suisun Creek watershed lies in southeastern Napa County and southwestern Solano County (Exhibits 1 and 2). There are no incorporated towns in the watershed and 99% of the land is used for agriculture—both cattle grazing and irrigated farmland.

The two main creeks in the watershed are Suisun Creek and its tributary, Wooden Valley Creek. White Creek is a tributary to Wooden Valley Creek and has been found to be an important, though disturbed, spawning area for steelhead trout. Water from the upper reaches of Suisun Creek is impounded in a water supply reservoir owned by the City of Vallejo and known as Lake Curry. White and Wooden Valley Creeks are free-flowing.

Much of the upper watershed is steep wildland, including oak woodland and chaparral. In the less steep middle reaches, native riparian vegetation in many areas has been removed, destroyed by cattle, or crowded out by the non-native *Arundo*. In some areas, Suisun Creek has become incised. The lower watershed drains into the brackish waters of Suisun Marsh, with its important estuarine and Delta fisheries and habitat for waterfowl and other migratory birds and resident birds.

The Suisun Creek watershed is identified in the Baylands Ecosystem Habitat Goals report as supporting one of the remaining riparian forests in the Bay Area. Riparian forests are important habitat for diverse flora and fauna, assist in maintaining channel bank stability, contribute nutrients to the streams that they border, and are important for shading and limiting evaporation from streams.

Despite the significant degradation of stream habitat, both the National Marine Fisheries Service and the California Department of Fish and Game have found native steelhead trout, a federally listed threatened species, in the Suisun Creek watershed. As explained further below, the Suisun Creek watershed was recently identified as one of the eight most promising Bay Area watersheds for restoration of a viable steelhead population.

Project History: Suisun Creek watershed planning was initiated in the late 1990s by landowners who were concerned about restoring populations of steelhead trout and other natural resources. These landowners formed the Save Suisun Creek Alliance and later joined with the City of Vallejo to create the Suisun Creek Restoration Team (SCRT). The SCRT then grew to include a number of agencies, organizations and landowners. The principal objective of the SCRT is to manage the Lake Curry reservoir in the upper watershed for both water supply and protection and restoration of the steelhead trout fishery downstream.

In 2001, the Conservancy authorized a grant to the California Sportfishing Protection Alliance to prepare a Suisun Creek Watershed Assessment and Enhancement Plan. With a \$580,000 CALFED grant awarded in 2005 for the first phase of implementation, CSPA has been both

carrying out restoration measures and conducting monitoring and research to better target and design future restoration and management measures. In August 2007, the Suisun Creek watershed was identified as one of eight Bay Area “anchor watersheds” for steelhead by the Center for Ecosystem Management and Restoration (CEMAR) in its report, prepared with funding from the Conservancy and The Resources Legacy Fund Foundation, entitled “San Francisco Estuary Watersheds Evaluation: Identifying Promising Locations for Steelhead Restoration in Tributaries of the San Francisco Estuary.”

CLSI has worked with Conservancy staff to identify the stream and riparian habitat measures for this phase of implementation that will yield significant habitat improvements, including benefits to the steelhead fishery; are logical steps in restoration of the watershed; will not be affected by potential changes in water releases from Lake Curry; are ready to proceed or, in the case of the design and environmental review for the barrier removal and bridge replacement, are necessary prior to construction; are supported by landowners; and can be managed effectively by CLSI.

Conservancy staff expects to continue to work with CLSI and other interested parties, including the Suisun Creek Fruitgrowers Association, to plan and assemble funding for future phases of habitat restoration, open space protection, and regional trail placement in this important and scenic watershed. The \$143,520 watershed coordination grant recently provisionally awarded by the Department of Conservation (DoC) to CLSI may enable it to work more with all of the stakeholders to achieve mutual goals. (DoC will provide \$15,931 from its current budget, with the balance provided if it is appropriated sufficient additional funds.)

PROJECT FINANCING:

Phases 1 and 2 of restoration

Coastal Conservancy	\$350,000
State Water Resources Control Board (CALFED)	<u>580,000</u>
Total Phase 1 and 2 Project Cost	\$930,000

In addition to the Conservancy and other state grant funding, the private landowners on whose properties restoration measures are planned will provide in-kind services and additional funding, if needed, commensurate with the benefit that they receive from the habitat restoration measures, and will be required to protect the restored areas.

The anticipated source of Conservancy funds is the fiscal year 07/08 appropriation to the Conservancy from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84) (Public Resource Code Sections 75001 *et seq.*) Consistent with Section 75060, the proposed project will protect and restore natural habitat values of a watershed of San Francisco Bay and is consistent with Chapter 4.5 of Division 21, as discussed below.

Proposition 84 also requires that for restoration projects that protect natural resources, the Conservancy assess whether the project meets at least one of the criteria specified in Section 75071(a)-(e). The proposed project satisfies three of the specified criteria, as follows. Consistent with subsection (a), the riparian restoration on White and Suisun Creeks will

contribute to restoring both the riparian and the stream corridors, facilitating fish and wildlife movement and helping to sustain the steelhead trout and other fish and wildlife populations. Design and environmental review for removal of the fish-passage barrier on Wooden Valley Creek is a necessary step toward future elimination of the barrier to facilitate steelhead movement to and from spawning and nursery areas. Consistent with subsection (b), the purpose of all of the projects elements is to contribute to the long-term protection of and improvement to the water and biological quality of the Suisun Creek, a tributary to the San Francisco Bay estuary. Consistent with subsection (c), the proposed work on White and Suisun Creeks will result in restoration of two-five miles of riparian habitat, a major habitat type that has been heavily disturbed and widely destroyed around San Francisco Bay and the State.

Finally, as required by Section 75005 and described in “Project Summary”, above, the proposed project includes planning, monitoring and reporting necessary to ensure that project objectives are met.

CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:

The proposed project will be undertaken pursuant to Chapter 4.5 of the Conservancy’s enabling legislation, Public Resources Code Sections 31160-31165, to address resource goals in the San Francisco Bay Area. Under Section 31162, the Conservancy may undertake projects and award grants to achieve specified goals. These goals include protecting, restoring, and enhancing natural habitats and watersheds (Section 31162(b)). Two of the three proposed project elements entail restoring stream and riparian habitat that has been degraded by removal of riparian vegetation and colonization by non-native *Arundo*. The third proposed project element entails design and environmental review of measures for eliminating a barrier to fish passage, without which the restoration of fish passage cannot occur.

Pursuant to Section 31163(c), the Conservancy must “give priority to projects that, to the greatest extent,” meet five listed criteria. The proposed project meets four of the five criteria in that it spans two jurisdictions and serve a regional constituency with respect to restoration of steelhead trout habitat and other important fish and wildlife habitat; can be implemented in a timely way by the grantee; provides benefits to the federally listed steelhead, which needs habitat restoration in order to survive as a species, and also would enable removal of invasive *Arundo*, eliminating more of the source of seeds and other plant parts that would otherwise contribute to downstream colonization; and phases 1 and 2 of the project considered together includes a greater than 1.6:1 match from CALFED funding.

CONSISTENCY WITH CONSERVANCY’S 2007 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 10, Objective H** of the Conservancy’s 2007 Strategic Plan, the proposed project will result in restoration of approximately two to five linear miles of riparian habitat.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on September 20, 2007, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** As demonstrated by the letters from landowners in the proposed project area (Exhibit 4) and letters of support from Congressman George Miller, Congressman Mike Thompson, State Senator Patricia Wiggins, Assemblymember Noreen Evans, NOAA Fisheries, the Department of Fish and Game, Napa County Supervisor Bill Dodd, the Suisun Valley Fruit Growers Association, the California Sportfishing Protection Alliance, and the Napa County Farm Bureau (Exhibit 5), the proposed project has broad public support.
4. **Location:** The proposed project is in Napa and Solano Counties, within the jurisdiction of the San Francisco Bay Area Conservancy Program.
5. **Need:** Alternative funding is not available for the proposed project at the present time.
6. **Greater-than-local interest:** The proposed project is of statewide interest because it will restore stream habitat for the threatened steelhead trout and other native fish and will also restore riparian habitat for the benefit of many species.

Additional Criteria

7. **Urgency:** The threatened steelhead trout is one of the principal species intended to benefit from the proposed project. Measures for restoring degraded habitat for listed species should be taken as soon as possible. Removal of the aggressively invasive non-native plant, *Arundo donax*, should also be undertaken as quickly as possible to limit further colonization.
12. **Readiness:** The proposed grantee, CLSI, has undertaken similar projects and is ready to proceed.
13. **Realization of prior Conservancy goals:** See "Project History" above.
15. **Cooperation:** The proposed project is located on private properties where the landowners have agreed to participate.

COMPLIANCE WITH CEQA:

Two of the three proposed project elements--riparian revegetation and fencing on White Creek and *Arundo* removal, revegetation and fencing on Suisun Creek—are categorically exempt from review under the California Environmental Quality Act pursuant to Title 14, California

Code of Regulations Section 15333 because each is five acres or less in size, will be undertaken to assure the maintenance, restoration, enhancement, and protection of habitat for fish, plants, and wildlife. Furthermore, consistent with Section 15333, the two project elements will occur on stream banks and terraces where no endangered, rare or threatened species or their habitat are known to be present; there are no hazardous materials at or around the project sites that may be disturbed or removed; and the projects will not result in impacts that are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects.

The third project element—planning, design, cost-estimating and environmental review of measures for removing a barrier to fish passage in Wooden Valley Creek and for installing a small bridge—is statutorily exempt from CEQA review pursuant to Title 14, California Code of Regulations Section 15262, in that it would involve only planning studies for a possible future action which the Conservancy has not approved, adopted, or funded.

Upon approval, staff will file a Notice of Exemption for this project.